

NON-PUBLIC?: N
ACCESSION #: 9007230140

LICENSEE EVENT REPORT (LER)

FACILITY NAME: Turkey Point Unit 3 PAGE: 1 OF 4

DOCKET NUMBER: 05000250

TITLE: Reactor Trip Due To Operator Error
EVENT DATE: 06/15/90 LER #: 90-013-00 REPORT DATE: 07/13/90

OTHER FACILITIES INVOLVED: DOCKET NO: 05000

OPERATING MODE: 1 POWER LEVEL: 010

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR
SECTION:
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: D. R. Powell, Superintendent of TELEPHONE: (305) 246-6559
Licensing

COMPONENT FAILURE DESCRIPTION:
CAUSE: SYSTEM: COMPONENT: MANUFACTURER:
REPORTABLE NPRDS:

SUPPLEMENTAL REPORT EXPECTED: No

ABSTRACT:

On June 15, 1990, at 1203 EDT, with Unit 3 in Mode 1 (Power Operation) at 10 percent power and Unit 4 in Mode 1 at 100 percent power, Unit 3 experienced a reactor trip when the Operator raised power above 10 percent with the turbine in a tripped condition. Reactor power above 10 percent automatically resets the P-10 reactor trip permissive (reactor power greater than 10 percent) which in conjunction with a turbine trip provides a reactor trip. The unit was stabilized in Mode 3 (Hot Standby) in accordance with approved plant procedures. This event was caused by cognitive personnel error in that a licensed operator while attempting to correct a low reactor coolant temperature by pulling rods, failed to consider plant parameters with respect to reactor trip set points. This event will be reviewed with all applicable Operations personnel to increase awareness of the potential for undesirable results due to a failure to mentally review the consequences of actions being performed.

In addition, the necessity of adequate communications between the different operators and the Plant Supervisor Nuclear is also being

stressed during the operator review since inadequate communications was determined to have been a significant contributing cause of this event. On June 15, 1990, at 1253 EDT, the NRC was notified of this event in accordance with 10 CFR 50.72 (b) (2) (ii).

END OF ABSTRACT

TEXT PAGE 2 OF 4

I. EVENT DESCRIPTION

On June 15, 1990, at 1012 EDT, with Units 3 and 4 in Mode 1 (Power Operation) at 100 percent power, Unit 3 experienced a high conductivity alarm (steam generator/main condenser). The alarm was determined to be caused by a condenser tube leak. A power reduction was initiated in order to repair the leaking condenser tube. At 1137 EDT, with the unit at 25 percent power, due to the high chloride contamination of the steam generators, a decision was made to take the unit to Mode 2 (Start-up). When the reactor (AA) (RCT) was below 10 percent power, the turbine (TA) (TRB) was manually tripped.

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II. EVENT CAUSE

This event was caused by cognitive personnel error in that a licensed operator while attempting to correct a low reactor coolant system (RCS) (AB) temperature by pulling rods (AA) (ROD), failed to consider plant parameters with respect to reactor trip set points. Inadequate command control by the Control Room Supervisor contributed to the error.

The low RCS temperature arose from a combination of boration and rod

insertion to reduce reactor power and a slightly higher than normal rate of feedwater addition to the steam generators. The combination of these conditions caused the RCS average temperature to drop below 543 degrees Fahrenheit. Low RCS average temperature is a concern because an average RCS temperature of 543 degrees Fahrenheit or less makes up one of the inputs to the "High Steam Flow / Low T average Safety Injection" and in addition low RCS average temperature causes reactor coolant shrinkage which can cause low pressurizer level.

TEXT PAGE 3 OF 4

Also contributing to this event was a lack of adequate communications between the different operators involved in this event; in that the turbine was tripped prior to verifying that the reactor and steam generators were in a stable condition below 10 percent reactor power.

III. EVENT SAFETY ANALYSIS

A reactor trip due to a turbine trip at power greater than 10 percent (P-10 permissive logic) is a previously analyzed event. As a result of these analyses, plant procedures are developed to provide operator guidance in responding to these transient conditions and to assure that the plant is stabilized in a safe condition in accordance with the plant Technical Specifications. The unit was stabilized in Mode 3 in accordance with these approved plant procedures. All safety related equipment operated per design.

IV. CORRECTIVE ACTIONS

A. Immediate Corrective Actions:

The unit was stabilized in Mode 3 in accordance with approved plant procedures. All safety related equipment operated per design.

B. Corrective Actions to Prevent Recurrence:

1. This event will be reviewed with all applicable Operations personnel to increase awareness of the potential for undesirable results due to a failure to mentally review the consequences of actions being performed. In addition, the necessity of adequate communications between the different operators and the Plant Supervisor Nuclear is being stressed during this review since inadequate communications was determined to have been a significant

contributing cause of this event. This review is scheduled to be completed by August 31, 1990.

2. Operator training in self-checking was initiated as a result of an Event Response Team (ERT) recommendation following a May 26, 1990, manual reactor trip due to "Operator Error." This training is scheduled to be completed by August 1, 1990. Operators are being trained to take time to evaluate the consequences of their actions before operating equipment or control devices.

TEXT PAGE 4 OF 4

3. In addition, a new night order was issued to the Control Room Supervisors, covering significant operating evolutions such as unit startups, shutdowns, turbine valve tests, etc. This night order requires the Control Room Supervisor to establish himself as the command/control focus of the evolution and assure that evolution briefings are completed, that communications are accurate and adequate, and that evolutions are smooth and controlled.

V. ADDITIONAL INFORMATION

A. Similar Events

LER 251-90-04-00 reported a May 26, 1990, manual reactor trip due to "Operator Error."

B. Equipment Failures

None

ATTACHMENT 1 TO 9007230140 PAGE 1 OF 1

P. O. Box 14000, Juno Beach, FL 33408-0420
FPL

JUL 13 1990

L-90-254
10 CFR 50.73

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

Gentlemen:

Re: Turkey Point Unit 3
Docket No. 50-250
Reportable Event: 90-13
Date of Event: June 15, 1990
Reactor Trip Due To Operator Error

The attached Licensee Event Report is being submitted pursuant to the requirements of 10 CFR 50.73 to provide notification of the subject event.

Very truly yours,

K. N. Harris
Vice President
Turkey Point Plant Nuclear

KNH/DPS/dps

attachment

cc: Stewart D. Ebnetter, Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, Turkey Point Plant

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